LM	-	CCA-31(MIT)	1
LM	-	CCA-31(MIT)	1
LM	-	DMSM-1(340)	1
LM	-	MSC CCA201(V)	1
LM	-	LMS(T)	1
PART NO. LSC	350-301-05		1
LM	LDW340-21135	LTA-1(11)	1
LM	LDW340-21130		1
PART NO. LSC	350-301-03		
LM	LMU340-50051	M5-(05)	1

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM

PART NO. LSC350-301-01 | GAEC SCH NO.

LM	-	DFT(71)	2
PART NO LSC	350-301-02-1		
LM	-	QUALTEST	2
PART NO LSC	350-301-04-1		
	-	DVT(70)	1
PART NO. LSC	350-301-03-1		
LM	-	DVT(70)	2
LM	-	FC(FC)	1
LM	-	MSC CCA201(V)	1

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM

PART NO. LSC350-301-02 | GAEC SCH NO.

GRUMMAN REL INFO "R"

PRIM NO.	JK(007)		
411	ME16P 12/5/17		

SHEET REV STATUS: FOR DESCRIPTION OF REV SEE SUBQ SH 1.01 THRU 1.21

SHEET														
REV														

SEE SHEET 1.01

(5)

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCE UNLESS SPECIFIED
FRACTIONS — DEC — ANGLES
±1/64 ±.005 ±1/2°

ORIG DWG AUTH

DETAIL SPEC REQ	
CLASS II ENGRG CHG	
CLASS I ENGRG CHG	

DRAWN BY	G. PESCATOR 11-9-63	RELIABILITY	D.L. SMITH
LAYOUT BY		MASS PROP. CON	F. DOLCH FOR S. SAINA
CHECKED BY		SYS ANAL & INT	G. SCHEURLEIN 10-2-64
GRP LEADER	R. GEDNEY	CONF MGMT	R. GARDNER 10/6
SUB SYS ENGR	W SMITH	SPECIFICATIONS	R. BORNSTEIN
CREW PROV	G. KAELIN 7-8		
STRUCTURES	R. HILDERMAN	PROJ ENGR	R. CARIBEE 1-24-64
VEH DES & INT	L.H. PAULSRUD 12-7-63		

LINE ITEM 7 | DOCUMENTATION TYPE II

CONTRACT NO. NAS9-1100

GRUMMAN AIRCRAFT ENGRG CORP
BETHPAGE, L. I., NEW YORK

INDICATOR, ATTITUDE DISPLAYS SUBSYSTEM

SIZE	CODE IDENT NO.		
A	26512	LSC350-301	R

SPECIFICATION CONTROL DRAWING

SCALE: NONE | SHEET 1.00 OF 40

ENG 77.5 7-64

SUPERSEDES LSC 350-301 REV "M" 3-10-69

SHEET REVISION STATUS

CHG LTR	SHEET NUMBER	CHG LTR	SHEET NUMBER	CHG LTR	SHEET NUMBER	CHG LTR	SHEET NUMBER	CHG LTR	SHEET NUMBER	CHG LTR	SHEET NUMBER	CHG LTR	SHEET NUMBER	CHG LTR	SHEET NUMBER
R	1.00	R	1.01	R	1.02	L	1.03								
B	1.10	C	1.11	C	1.12	E	1.13	F	1.14	G	1.15	H	1.16	K	1.17
K	1.18	L	1.19	M	1.20	P	1.21	R	1.22						
H	2.00	M	2.01												
E	3.00														
C	3.10	B	3.11	C	3.12	M	3.13	E	3.14	L	3.15	M	3.16		
K	4.00	K	4.01	K	4.02										
C	5.00	C	5.01	K	5.02										
L	6.00														
L	7.00														
F	7.10	K	7.11	L	7.12	P	7.13								
L	8.00														

SPECIFICATION CONTROL DRAWING

GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK

SIZE	CODE IDENT NO.		
A	26512	LSC350-301	R
SCALE NONE			SHEET 1.01

ENG 77.7 7-64

SUPERSEDES LSC350-301 "M" 3-10-69

				LM		DMSM(47)	2
				LM	LDW355-58531	OSC-1	1
				LM	LDW340-55130	OS-5	1
					LDW340-55135	OS-5	1
					LDW340-55130	LM-5(35)	1
					LDW355-58531	LM-15(45)	1
						LM-13(43)	2
						LM-12(42)	2
						LM-11(41)	2
						LM-10(40)	2
					LDW355-58531	LM-9(39)	2
					LDW340-55135	LM-8(38)	1
					-55130	LM-8(38)	1
					-55135	LM-7(37)	1
LM	LDW340-54135	OS-4	1		-55130	LM-7(37)	1
LM	LDW340-55135	LM-5(35)	1		-55135	LM-6(36)	1
LM	LDW340-54135	LM-4(34)	1		-55130	LM-6(36)	1
LM	LDW340-54130	LM-4(34)	1	LM	LDW340-53130	LM-3(33)	1
MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM	MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM
PART NO. LSC350-301-04-5	GAEC SCH NO.			PART NO. LSC35-301-04-6	GAEC SCH NO.		

SPECIFICATION CONTROL DRAWING

GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK

SIZE	CODE IDENT NO.		
A	26512	LSC350-301	R
SCALE NONE		SHEET 1.02	

(8)

ENG 77.26 9-66

SUPERSEDES LSC350-301 REV K 1-18-67

LEM	LDW340-53135	LEM-3(33)	1
LEM	LDW340-53130	LEM-3(33)	1
PART NO. LSC350-301-04-4			
LEM		DVT (70)	2
	LDW340-52135	LEM-2(32)	1
	340-52130	LEM-2(32)	1
	340-51135	LEM-1(31)	1
	340-28130	LEM-1(31)	1
	350-28301	LTA-8(18)	1
LEM	LDW350-28301	LTA-8(18)	1
MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM
PART NO. LSC350-301-04	GAEC SCH NO.		

LM		OS-2	2
PART NO LSC350-301-04-3			
LM		OS-1	2
PART NO LSC350-301-04-2			
LEM	LMU340-50050	M5 (05)	1
PART NO LSC350-301-07			
LM		FMES(T)	1
LM		DMSM(346)	1
PART NO LSC350-301-05-1			
LEM	LDW340-21135	ESI	1
LEM	LDW340-21130	ESI	1
MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM
PART NO. LSC350-301-06	GAEC SCH NO.		

GRUMMAN REL INFO

PRIM NO.			

SHEET REV STATUS: FOR DESCRIPTION OF REV SEE SUBQ SH

SHEET															
REV															

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCE UNLESS SPECIFIED
FRACTIONS — DEC — ANGLES

ORIG DWG AUTH

DETAIL SPEC REQ

CLASS II ENGRG CHG

CLASS I ENGRG CHG

DRAWN BY			
LAYOUT BY			
CHECKED BY			
		PROJ ENGR	

LINE ITEM | DOCUMENTATION TYPE

CONTRACT NO.

GRUMMAN AIRCRAFT ENGRG CORP
BETHPAGE, L. I., NEW YORK

SIZE	CODE IDENT NO.		
A	26512	LSC350-301	K (K)

SPECIFICATION CONTROL DRAWING

SCALE: NONE | SHEET 1.03

ENG 77.5 7-64

CHANGE LTR	ITEM NO.	SHEET NO.	ZONE	SH CHG LTR	DET SPEC	CLASS I	CLASS II	REVISIONS DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD	GOVT APPD
								REDRAWN NEW FORMAT, LAST REVISION WAS REV "A"			
B	1	6.00	A4	B				REMOVED -1 ASSY, ADDED -01, -02, -03 & -04			
	2	3.00						DELETED NOTE 1. NOTE 1 WAS PREVIOUSLY REMOVED UNDER REV A AND WAS NOT RECORDED IN CHANGE BLOCK.			
	3	3.13						REMOVED SPECIFICATION NOTE OVER TITLE BLK AND REPLACED WITH NOTE 16.			
	4	3.00 3.10						IN NOTE 4 DELETED "(TOL FOR ALL MARKINGS $\pm .005$ $-.000$)" IN NOTE 4a, "3.750 MIN" WAS "4.000 MIN" IN NOTE 4d, "10° FROM 00" WAS "5° FROM 0°" IN NOTE 4g "PITCH LINES" WAS "YAW DOTS & LINES" NOTE 4h WAS: "NUMERALS FOR MAJOR PITCH LINES: HEIGHT .125, WIDTH .075, STROKE WIDTH .018" DELETED NOTE 4i IN NOTE 5, DELETED: (TOL FOR ALL MARKINGS: $\pm .005$ $-.000$) AND 5a.			
	5	3.10						DELETED NOTES 5d, 6, 6a, 6b, 6c, 6d, 6e, 6f & 7. ADDED NOTE 5f.			
								CONT ON SH 1.11			

CONT ON SH 1.11

SPECIFICATION CONTROL DRAWING	SIZE	CODE IDENT NO.		
	A	26512	LSC350-301	B
GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK	SCALE NONE		SHEET 1.10	

ENG 77.6 7-64

CHANGE LTR	ITEM NO.	SHEET NO.	ZONE	SH CHG LTR	DET SPEC	CLASS I	CLASS II	REVISIONS DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD	APPD
								CONT FROM SH 1.10			
B	6	3.11		B				IN NOTE 9, DELETED LAST PARAGRAPH	E CATALANO 5-1-65		
	7							IN NOTE 10 "WIDTH .050 WAS .030 DELETED NOTE 11			
	5	3.00						ADDED TO NOTE 4 b "... BELOW 60° PITCH LINE..." & "ABOVE 60° PITCH LINE: LENGTH .100 WIDTH .015			
	9	3.10						IN NOTE 8, 36440 WAS 36176			
	10	3.11						IN NOTE 10, LENGTH WAS .800			
	11	3.12						DELETED NOTES 12 & 14. ADDED NOTE 15			
	12	3.12						IN NOTE 13, 0.25 ± 0.10 WAS 0.1 ± .04			
	13	4.00						2.825 ± .010 DIA WAS "3.200 ± .010 VISIBLE DIA OF SPHERE"			
C	1	1.00						SH 1.00 OF 16 WAS SH 1.00 OF 13, DELETED: SHEET NUMBERS & REVISION NUMBERS. ADDED "SHEET REVISION STATUS" SEE SH 1.01, ADDED -05, -06 & -07 ADDED SH 5.01	D SHIPMAN 9-29-65 JK		
		2.00						ADDED -05, -06 & -07. I & T, "E" WAS "S" & "NONE" WAS "PARA 3.5.2".			
	2	3.10						TO NOTE # 8 ADDED GRAY NO. 36622, GRAY NO. 36176, SWITZER DAY-GLOW; FIRE ORANGE, ROCKET RED, SIGNAL GREEN AND YELLOW TO MATCH FEDERAL STANDARD 33538 (CONT ON SH 1.12)			

SPECIFICATION CONTROL DRAWING	SIZE	CODE IDENT NO.		
	A	26512	LSC350-301	C
GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK	SCALE NONE		SHEET 1 11	

ENG 77.6 7-64

CHANGE LTR	ITEM NO.	SHEET NO.	ZONE	SH CHG LTR	DET SPEC	CLASS I	CLASS II	REVISIONS DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD	APPD
C	3	3.12						REVISED NOTE 13, WAS: "WHEN THE INTEGRAL LIGHTING IS OPERATED AT RATED BRIGHTNESS (WHITE MARKINGS AND AREAS .5 ± .2 FT LAMBERTS) THE BRIGHTNESS OF THE SPHERE GRAY BACKGROUND SHALL BE 0.25 ± 0.10 FT LAMBERTS." REMOVED FROM NOTE 15: "POINTER SHALL OVERLAP GRADUATION MARKING BY .025 ± .01."			
	4	3.13						NOTE 16: ADDED -05, -06, -07 AND AMENDMENT NOS., ADDED NOTE 17			
	5	4.00						ADDED DET "G" & CALLOUTS WHERE INDICATED.			
	6							ADDED TO CALLOUTS "___ & PART NO. CHART, SH 7.00 "			
	7							WAS "___ POINTER WHITE (SEE NOTES 8 & 10)"			
	8							WAS "BLACK WITH .025 WHT LINE"			
	9							CALLOUT WAS "WHITE"			
	10	5.00						CALLOUT WAS "SEE DETAIL "D" & NOTE 15"			
	11	6.00	4A					ADDED -05, -06 & -07			
	12		3A 6A					ADDED CALLOUT ADDED DIM 1.150 MIN (TYP)			
	13		7A					CALLOUTS WERE "SEE DETAIL "A" (SH 5.00)", "SEE DETAIL "B" (SH 5.00)", "SEE DETAIL "C" (SH 5.00)" RESPECTIVELY. REM'D GRADUATIONS.			
	14		7C								
	15		5C								
	16		5C					CALLOUT ADDED WITH ASSOC POINTERS.			
	17	7.00	7D					REVISED P N CHART, RELOCATED TO ZONE 5B			

SPECIFICATION CONTROL DRAWING

GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK

SIZE	CODE IDENT NO.		
A	26512	LSC350-301	C
SCALE NONE			SHEET 1.12

ENG 77.6 7-64

CHANGE LTR	ITEM NO.	SHEET NO.	ZONE	SH CHG LTR	DET SPEC	CLASS I	CLASS II	REVISIONS DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD	~~GOVT~~ APPD
D	1	1.00						SHEET 1.00 OF 19 WAS SHEET 1.00 OF 16	A. ANDRIANI 29 JAN 1966 ER	[illegible] 2/3/66 Brentlinger/MMW 2-3-66 [illegible] 2-3	R.M.Corbey per R.P. 3Feb66 [illegible] 2-3-66
	2	1.01						ADDED SHEETS 1.13, 3.14 AND 7.10			
	3	3.13						NOTE 16 AMENDMENT NO'S WERE 3,2,3, 3,3,3 & 2.			
	4	6.00	C2					ADDED PIGTAIL FOR -04 IN PHANTOM			
	5	7.00	B2					IN PART NUMBER CHART "WIRING PER TABLE" COLUMN, III FOR -03 & 04 WAS II			
	6	7.00	B2					IN PART NUMBER CHART, ADDED "ETI SUPPLIED BY COLUMN"			
	7	7.00	D2					ADDED "CONDITION" COLUMN TO TABLE II			
E	1	1.00 1.03						SH 1.00 OF 23 WAS SH 1.00 OF 19, ADDED -04-1, & EFFECTIVITIES FOR -01 THRU -05. REMOVED -04, -06 & -07 FROM SH 1.00, ADDED TO SH 1.03	A. ANDRIANI 28 MAR 1966		
	2	1.01 1.14 4.01						ADDED SHS. 1.02, 1.03, 1.14 & 4.01.			
	3	1.02						ADDED -04-2			
	4	2.00						ADDED ITEM WEIGHTS & -04-1 & -04-2			
	5	3.00						NOTE 4 (C) "5° PITCH.....015" WAS "PITCH.......015"			
	6	3.13						ADDED -04-1 & -04-2			
								CONT ON SHEET 1.14	EJR [illegible]		

SPECIFICATION CONTROL DRAWING

GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK

SIZE	CODE IDENT NO.		
A	26512	LSC350-301	E
SCALE NONE			SHEET 1.13

ENG 77.6 7-64

CHANGE LTR	ITEM NO.	SHEET NO.	ZONE	SH CHG LTR	DET SPEC	CLASS I	CLASS II	REVISIONS DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD	GOVT APPD
C	1	1.00 1.01 1.17 8.00						SH 1.00 OF 29 WAS 1.00 OF 27 ADDED SH 1.17, 8.00	J. LONG 24 FEB 67		58-67
	2	6.00						DELETED -04-3 CONFIGURATION.			
	3	7.00 8.00					A	ADDED -04-3 CONFIGURATION.			

SPECIFICATION CONTROL DRAWING	SIZE A	CODE IDENT NO. 26512	LSC350-301	J
GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L.I., NEW YORK	SCALE NONE		SHEET 1.17	

ENG 77.6 7-64

CHANGE LTR	ITEM NO.	SHEET NO.	ZONE	DET SPEC	CLASS I	CLASS II	GRUMMAN INFO ONLY	REVISIONS — FOR CONTINUATION OF REVISIONS SEE SHEET ____ DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD	GOVT APPD
L	2	1.02			✓			ON-04-5 N/A FOR LM-5 WAS LDW 340-54130 & LDW 340-54135. LCD 2249 CCA 726	J. RECCARDI 11-18-68	Kenneth Hubbard 12/2/68; 12/2/68; 12/10/68	12-2-68; 12-31-68
	3							ON-04-5 ADDED N/A TO EFF 05-4 [REF EOB4 ON LDW 340-54130 & EOB6 ON LDW 340-54135, LCD 1673 CCA 564]			
	4	7.13	4H					IN DEVIATIONS COL FOR-02-1 LVC350-301-092 WAS NONE LCD 2891			
	5	3.13 3.15				✓		DELETED CALLOUT (SEE NOTE 25) & DELETED NOTE 25			
	6	7.12				✓		DELETED TEST CONNECTOR PIN "J" & ASSOC. INFORMATION (DWG CORRECTION)			
	7	7.13	3F		✓		LCD 3112 CCA 1324 ECP F052CC	IN PART NO. CHART & DEVIATION COL. ADDED "LVC350-301-103 & -099" FOR-04-6 GAIL KARTELMAR			

COG ENGR | GRP LEADER | RELIABILITY | SPECIFICATIONS | SUB SYSTEM/PROJ. | RELEASE

SPECIFICATION CONTROL DRAWING	SIZE	CODE IDENT NO.		
GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK	A	26512	LSC 350-301	L
	SCALE NONE		SHEET 1.20	

ENG 77.6 5-66

CHANGE LTR	ITEM NO.	SHEET NO.	ZONE	DET SPEC	CLASS I	CLASS II	GRUMMAN INFO ONLY	REVISIONS — FOR CONTINUATION OF REVISIONS SEE SHEET _____ DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD	GOVT APPD
								SHT 1.00 & 1.01 RETRACED, NO CHANGE, LAST REV "N". SHT 7.10 RETRACED, NO CHANGE, LAST REV "F". SHT SIZE "C" WAS "D". SHT 7.13 RETRACED NO CHANGE LAST REV "L" SHT. SIZE D WAS "E".	STROMBERGER 6-19-69		
N	1	1.00 1.01 1.02			✓		LCD 3920	SHT 1.00 OF 39 WAS SHT 1.00 OF 38, ADDED SHT. 1.21. ON-04-5 REMOVED EFF LM-5(35), N/A LDW 340-55130. ON -04-6 ADDED EFF LM-5(35).	BOB STROHMENGER 6-19-69	7-2-69	7-22-69
	2	7.13				✓	(B)	IN PART NUMBER CHART FOR -05-1 IN "HERMETICALLY SEALED" COLUMN "YES" WAS "NO" (DRAWING CORRECTION)			

COG ENGR
GRP LEADER
RELIABILITY
SPECIFICATION
SUBSYS/PROJ
RELEASE

	SIZE	CODE IDENT NO.		
SPECIFICATION CONTROL DRAWING	A	26512	LSC350-301	N
GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK	SCALE NONE			SHEET 1.21

ENG 77.6 5-66

CHANGE LTR	ITEM NO.	SHEET NO.	ZONE	DET SPEC	CLASS I	CLASS II	GRUMMAN INFO ONLY	REVISIONS FOR CONTINUATION OF REVISIONS SEE SHEET ___ DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD	APPD
P	2	1.00 1.22 1.01 7.13 1.21	M			✓		SHEET 1.00 OF 40 WAS 1.00 OF 39 ADDED SH. 1.22. IN PART NO. CHART FOR 04-6 ADDED LVC350-301-110 TO DEVIATIONS COLUMN.	T. TRANCE 12/1/69		
	3	1.00 1.01	M		✓ Ⓡ		LCD 3858	ON -04-5 DELETED EFF OS-4 N/A LDW340-54130. ON-04-6 ADDED EFF OSC-1.			
R	1	1.00 1.01 1.02 1.22		Ⓡ	✓		LCD 5485 PKG 1	ON -04-6 DELETED LM-14 EFFECTIVITY N/A LDW355-58531 QTY 2; ADDED DMSM EFFECTIVITY JWCobb 5-7-70	T. TRANCE 5-7-70		

COG ENGR
GRP LEADER
RELIABILITY
SPECIFICATION
SUBSYS/PROJ
RELEASE

SPECIFICATION CONTROL DRAWING

GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK

SIZE	CODE IDENT NO.		
A	26512	LSC350-301	R
SCALE NONE		SHEET 1.22	Ⓡ

ENG 77.6 5-66

VENDORS LISTED ARE ACCEPTABLE SOURCE/S

GAEC SPECIFICATION CONTROL DRAWING & DASH NUMBERS	I & T	VENDORS NAME ADDRESS - CODE IDENT & PART NUMBERS	VENDOR DRAWINGS NUMBER AND REVISIONS	VENDOR DRAWINGS ITEM WEIGHT			IDENTIFICATION & TRACEABILITY REQ PER LSP 14-007
		LEAR SIEGLER GRAND RAPIDS, MICH. 35351		SEE NOTE 21			
LSC350-301 -01	E	P144000-01	P144000-01				NONE
-02	E	P144200-01	P144200-01	12 LBS			
-03	E	P144300-01	P144300-01	9.2 LBS			
-03-1	E	144300-02	144300-02	9.2 LBS			NONE
-04	S	144400-01	144400-01	9.2 LBS			ALL
-05	E	P144200-04	P144200-04	12 LBS			NONE
-06	E	P144200-03	P144200-03	12 LBS			
-07	E	P144000-02	P144000-02				NONE
-04-1	S	144600-01		8.5 LB.			ALL
LSC350-301-04-2	S			8.5 LB.			ALL

SPECIFICATION CONTROL DRAWING	SIZE	CODE IDENT NO.		
GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK	A	26512	LSC350-301	F
	SCALE NONE			SHEET 2.00

ENG 77.8 7-64

VENDORS LISTED ARE ACCEPTABLE SOURCE/S

GAEC SPECIFICATION CONTROL DRAWING & DASH NUMBERS	I&T	VENDORS NAME ADDRESS - CODE IDENT & PART NUMBERS	VENDOR DRAWINGS				(I&T) REQ'MTS APPLICABLE PER PARA
			NUMBER AND REVISIONS	ITEM WEIGHT			
LSC350-301-04-3	S	144400-01-04	144400-01-04	8.6LB			ALL
-02-1	E	P144200-05	P144200	12.3			NONE
-04-4	S	144400-01-05	144400	8.9			ALL
-04-5	S	144400-01-06	144400	8.9			ALL
-04-6	S	144400-01-07	144400	8.9			ALL
LSC350-301-05-1	E	P144200-06	P144200	12.3LB			NONE
		LEAR SIEGLER GRAND RAPIDS MICH. 35351		SEE NOTE 21			

I & T: IDENTIFICATION AND TRACEABILITY IN ACCORDANCE WITH LSP-14-007

SPECIFICATION CONTROL DRAWING	SIZE	CODE IDENT NO.		
	A	26512	LSC350-301	L
GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK	SCALE NONE		SHEET 2.01	

(L)

ENG 77.8 10-64

NOTES(CONT FROM SH 3.12)

16. THIS SPECIFICATION CONTROL DRAWING AND GRUMMAN SPECIFICATION LSP-350-301 WITH REVISIONS AND AMENDMENTS AS NOTED, ESTABLISH THE COMPLETE REQUIREMENTS FOR THE FOLLOWING PARTS: ~~(SEE NOTE 25)~~

DASH NO.	NOMENCLATURE	SPEC NO.	AMENDMENT NO.
-02-1	INDICATOR, ATTITUDE	LSP-350-301B	2
-05-1			2
-04-4			2
-04-5			2
-04-6			3
-01	INDICATOR, ATTITUDE	LSP-350-301B	1
-02			1
-03			1
-03-1			1
-04			1
-04-1			1
-04-2			2
-04-3			2
-05			1
-06			1
-07	INDICATOR, ATTITUDE	LSP-350-301B	1

17. FOR LSC350-301-03,-03-1,-04,-04-1,-04-3,-04-4,-04-5,-04-6 FRONT AND REAR SURFACES OF THESE 4 TABS TO BE FREE OF PAINT AND FINISHED WITH A GAEC APPROVED CONDUCTIVE COATING SUCH AS IRRIDITE NO. 14-2 PER MIL-C-5541

(CON'T ON SH. 3.14)

	GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK			
SPECIFICATION CONTROL DRAWING	SIZE A	CODE IDENT NO. 26512	LSC350-301	L
	SCALE ~			SHEET 3.13

NOTES; (CONTINUED FROM SHEET 3.14)

22. LSC 350-301-XX-X SHALL CONTAIN A "POWER-OFF" FLAG POSITIONED OPPOSITE THE PITCH ERROR METER AS SHOWN ON SHEET 4.01. THE FLAG SHALL HAVE AN ORANGE (SWITZER DAYGLOW FIRE ORANGE) BACKROUND WITH THE WORD "OFF" IN BLACK LETTERING. THE FLAG SHALL BE IN VIEW WHEN 28VDC POWER IS ABSENT. ~~FROM THE RED & BLACK LEADS SHOWN ON TABLE III.~~ THE FLAG SHALL BE OUT OF VIEW (HIDDEN BEHIND THE MASK) WHEN 28V DC POWER IS PRESENT. DC POWER CONSUMED BY THE FLAG SHALL NOT EXCEED 0.5 WATTS. THIS FLAG POWER IS IN ADDITION TO THE DC POWER SHOWN IN PARA 3.5.7 OF LSP 350-301 (SEE PART NO CHART).

23. ATTITUDE INDICATOR PART NO. LSC 350-301-04, (UNIT NOS 101, 102, 103, 104, 107 & 108) HAVE BEEN REWORKED BY GRUMMAN IN ACCORDANCE WITH LWR 250-168 AS FOLLOWS:

A. GE RTV 20 POTTING ON HEADER HAS BEEN OVERPOTTED WITH EC 1663 AB PER LSP 14-14201C.

B. BUSHING UNDER CABLE CLAMP HAS BEEN REMOVED & REPLACED WITH "H" FILM TAPE. VENDOR SHALL REFLECT THESE MATERIAL CHANGES (DIFFERENT GRUMMAN APPROVED MATERIAL MAY BE SUBSTITUTED) ON ALL LSC 350-301-04-2 & LSC 350-301-04-3 ATTITUDE INDICATORS.

~~24 LSP 350-301-B(1) REQUIREMENTS ARE SUPPLEMENTED BY THE FOLLOWING LEM VENDOR CHANGE NOTICES: LVC 350-301-041, 053, 056, 057, 064,~~

25 LSP 350-301-B(-2) REQUIREMENTS ARE SUPPLEMENTED BY THE FOLLOWING LM VENDOR CHANGE NOTICES: LVC 350-301-085, 086

	GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK			
SPECIFICATION CONTROL DRAWING	SIZE A	CODE IDENT NO. 26512	LSC350-301	K
	SCALE NONE		SHEET 3.15	

ENG 77.9 7-64

26. DETAIL P, R & S MAY BE MADE FROM DETAIL H, J & K BY OVER-PAINTING (10.20 & SHORTEN GRADS) AS REQUIRED. BEST COMMERCIAL PRACTICES SHALL APPLY SUCH THAT DEFECTS ARE NOT APPARENT WHEN VIEWED FROM A DISTANCE OF TWO (2) FEET.

27.

PART NO. LSC350-301-	ACCEPTABLE REPLACEMENT FOR SPECIFIED PART NUMBER
-04	-04-1 , -04-2 , -04-3
-04-1	-04-2 , -04-3
-04-2	-04-3
-04-3	NONE
-04-4	-04-5 , -04-6
-04-5	-04-6
-04-6	NONE

SPECIFICATION CONTROL DRAWING

GRUMMAN AIRCRAFT ENGRG CORP, BETHPAGE, L. I., NEW YORK

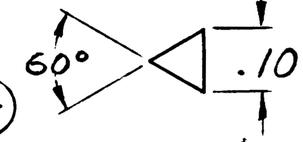
SIZE	CODE IDENT NO.		
A	26512	LSC350-301	L

SCALE NONE SHEET 3.16

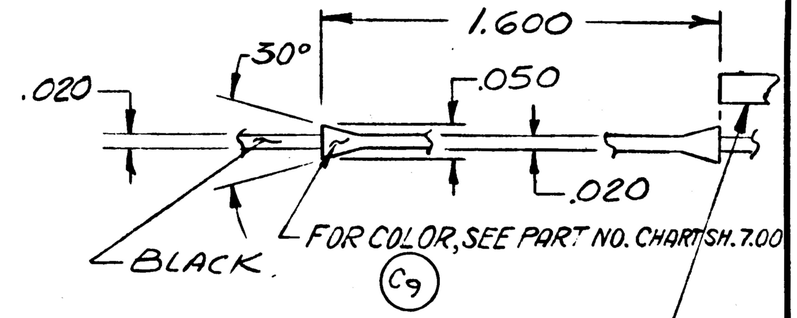
ENG 77.9 7-64

FOR DISPLAY MASK MARKING SEE NOTE #5
FOR SPHERE MARKING SEE NOTE #4

DETAIL "G" (C5)



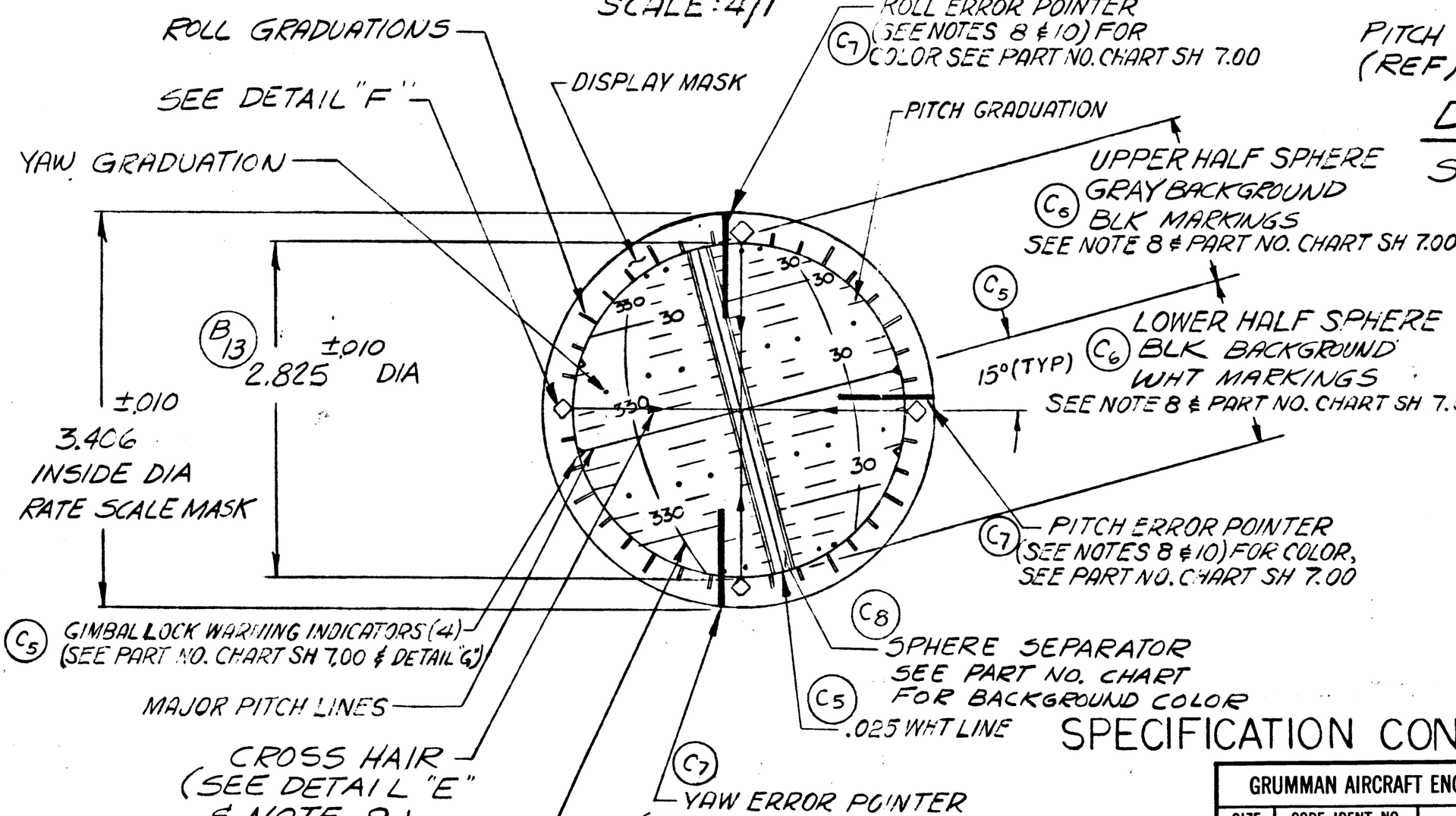
SCALE: 4/1



PITCH ERROR POINTER (REF) SEE NOTE 10)

DETAIL "E"

SCALE: 4/1



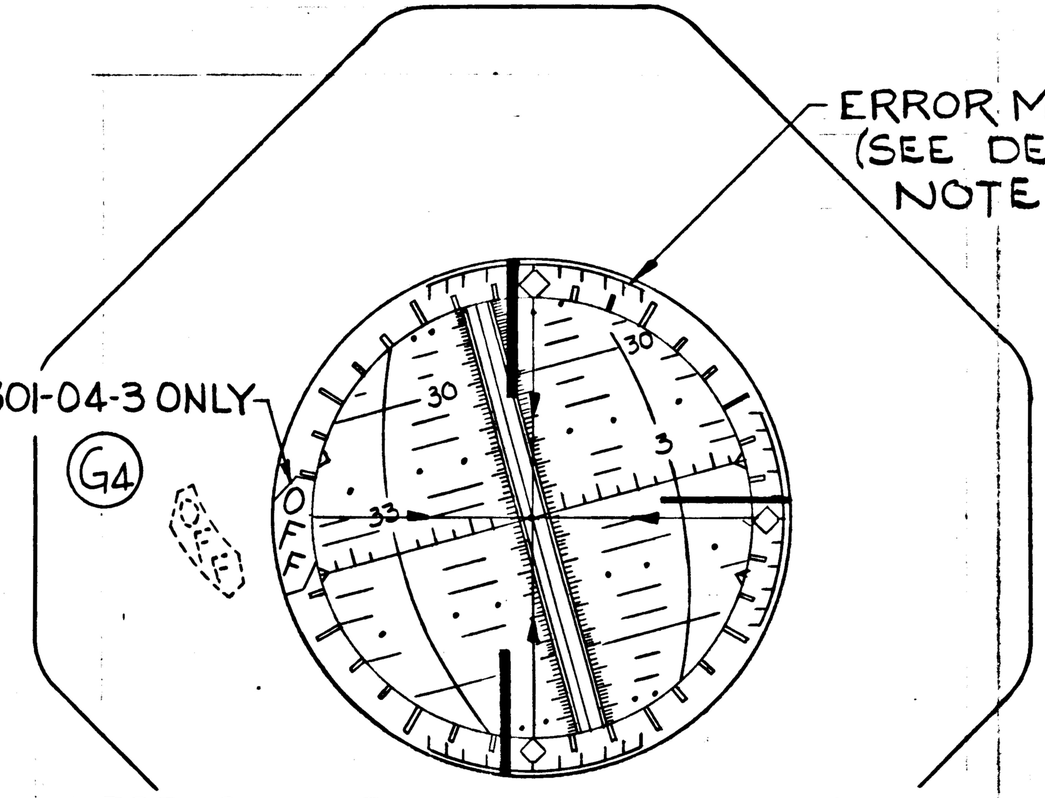
DETAIL "F"

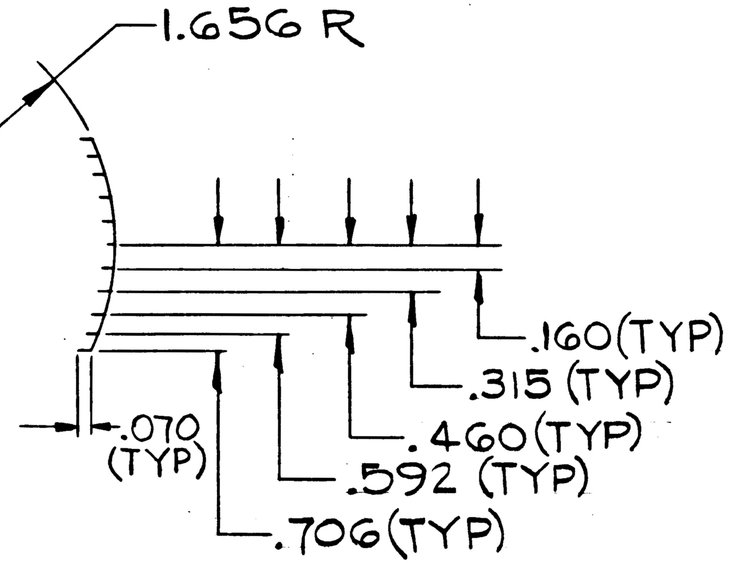
SCALE: 4/1

SPECIFICATION CONTROL DRAWING

GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK			
SIZE B	CODE IDENT NO. 26512	LSC350-301	E
SCALE 1/1 &	NOTED	SHEET 4.00	

ENG 73.1 6-64





DETAIL M

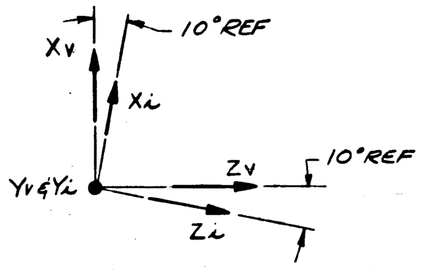
E1

FOR LSC350-301-04-2 G1
LSC350-301-04-3 SEE NOTE 22
SAME AS LSC 350-301-01 THRU -07 & -04-1
EXCEPT AS SHOWN

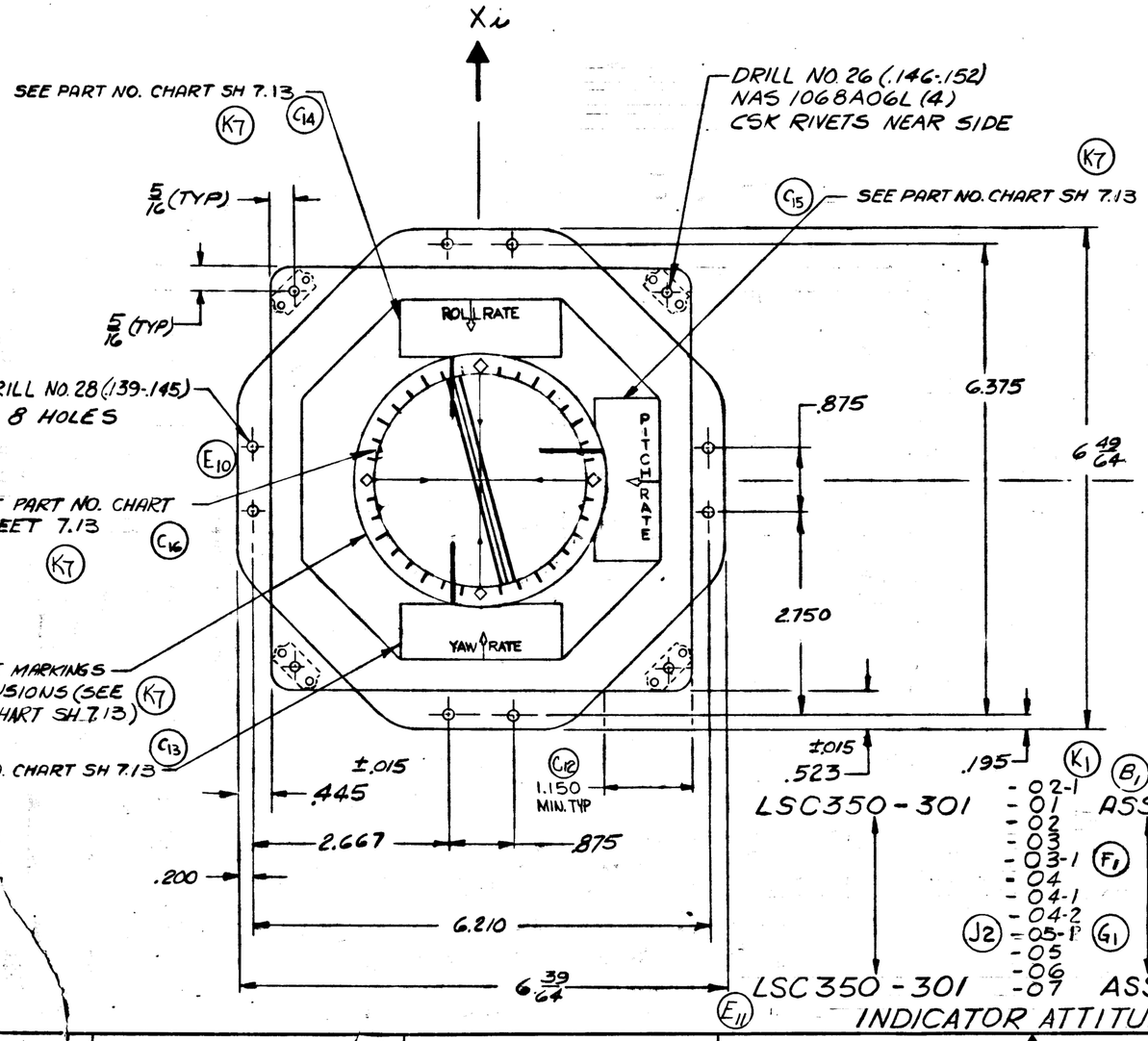
SPECIFICATION CONTROL DRAWING

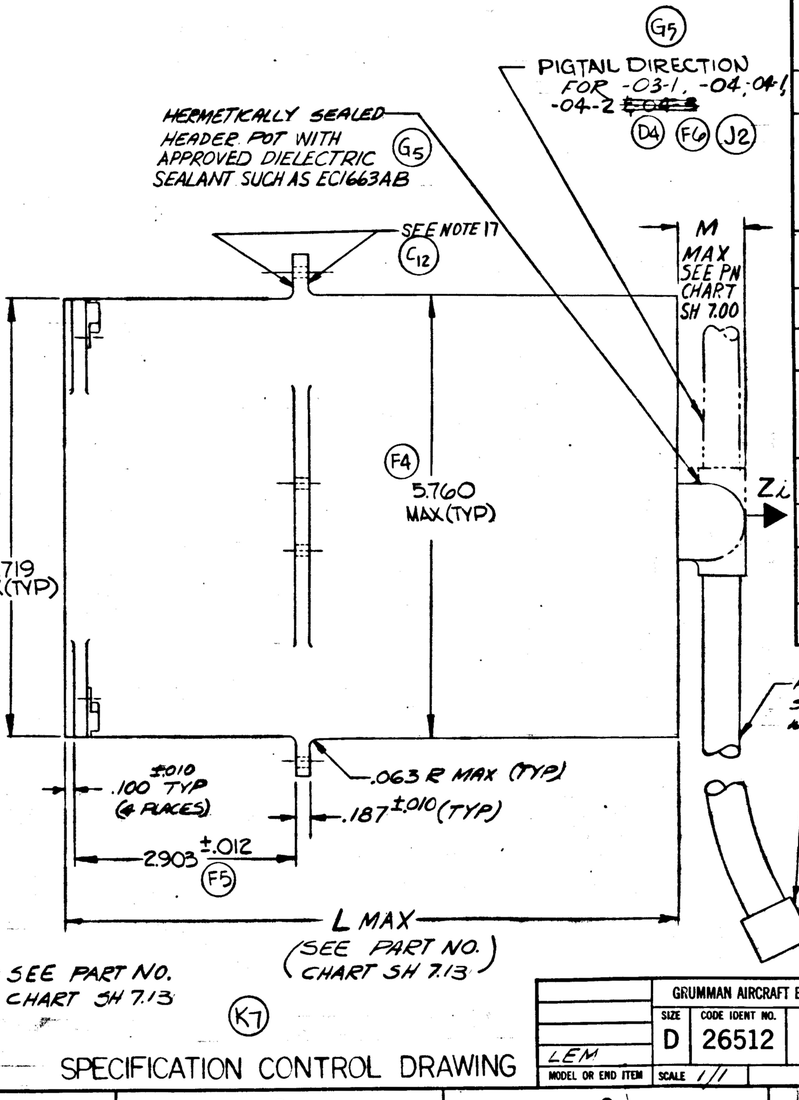
GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK			
SIZE B	CODE IDENT NO. 26512	LSC350-301	G
SCALE 1/1		SHEET 4.01	

ENG 73.1 6-64



INDICATOR AXIS IN REF TO VEHICLE AXIS (FOR REF ONLY)





MANUFACTURING OPERATIONS

UNLESS OTHERWISE SPECIFIED NOTES CHECKED √ APPLY TO THIS DWG.

- PART NUMBER AND ALL OTHER MARKINGS IN REGION MARKED ⊠ USE BOTH SIDES IF NECESSARY.
- FILLET AND INSIDE CORNER RADII TOLERANCES .016R TO .062R ± .010; .063R TO .250R ± .015; OVER .250R ± .030
- DEPTH SHOWN FOR TAPPED HOLES IS FULL THDS. 2-3 IMP THDS. BEYOND PERMISSIBLE.
- EXTERNAL THREAD LENGTH SHOWN INCLUDES 2 IMPERFECT THREADS MAX.
- DO NOT CADMIUM PLATE & PAINT HOLES OR SURFACES MARKED WITH DOUBLE ASTERISK.
- MISMATCH STEP OF ± .005 PERMISSIBLE DUE TO CHANGE OF CUTTERS AT INSIDE INTERSECTING SURFACES.
- DIAMETERS MARKED MUST BE CONCENTRIC WITHIN FULL INDICATOR READING
- HOLES MUST BE KEPT FREE OF CHROME PLATING SOLUTION.
- ALL DIMENSIONS SHOWN TO BE MET AFTER CADMIUM PLATING. THICKNESS OF PLATE .0003 MIN. TO .0005 MAX. MIN. THICKNESS TO BE .0002 ON THREADED AREAS. NO ALLOWANCE FOR PLATING IN HOLES
- 125 √ SURFACE ROUGHNESS INCLUDING REAMED HOLES PER MIL-STD-10
- 200 √ FOR ALL DRILLED HOLES
- REMOVE ALL BURRS. BREAK ALL EDGES .015-.031
- INSPECTION INFORMATION MINIMUM PERMISSIBLE AVERAGE EDGE DISTANCE MARKED IS
- SYMBOL ✓ DENOTES SURFACE TO BE MACHINED
- UNLESS OTHERWISE SPECIFIED TOLERANCE ON FLANGES IS ± 1/32
- LENGTHS OF AN, NAS & MS AL ALY RIVETS SHORTER THAN 1 INCH ARE NOT SPECIFIED.
- TOLERANCE ON LOFTED DELINEATIONS IS

	GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L I., NEW YORK		
LEM MODEL OR END ITEM	SIZE D	CODE IDENT NO. 26512	LSC350-301 K
	SCALE 1/1		SHEET 6.00

SPECIFICATION CONTROL DRAWING

(C17)

PART NUMBER CHART

PART NUMBER	MODEL	L MAX (SEE SH 6)	WIRING PER TABLE	DWG REV NO.
LSC350-301 -01	MOCK UP	8	I	
" -02	PREPRODUCTION	11	II	
" -03	PREPRODUCTION	8	II	
LSC350-301 -04	PRODUCTION	8	II	

TABLE I

WIRE COLOR IDENTIFICATION	AWG SIZE	SIGNAL	TEST CONNECTOR PIN	HEADER PIN
WHT/BRN/YEL	26	E.L. LIGHTING POWER	g	g
WHT/BRN/GRN	26	LIGHTING RETURN	h	h

(D7)

TABLE II

WIRE COLOR IDENTIFICATION	AWG SIZE	SIGNAL	TEST CONNECTOR PIN	HEADER PIN	CONDITION
BROWN	22	115 V 400 ~	A	A	TWISTED PAIR
YELLOW	22	115 V RETURN	B	B	
RED	22	28V DC (+)	C	C	TWISTED PAIR
BLACK	22	28V DC RETURN (-)	D	D	
BLUE	26	SINE α	K	H	TWISTED TRIPLE
GRAY	↑	RETURN α	S	J	
WHITE		COSINE α	T	K	
WHITE/BLACK		ERROR REFERENCE 800/400CPS	n	ı	TWISTED PAIR
WHITE/BROWN		ERROR REFERENCE 800/400CPS RET.	P	L	
WHITE/RED		RATE REFERENCE VOLTAGE	T	M	TWISTED PAIR
WHT/BRN/BLU		RATE REFERENCE VOLTAGE RET.	S	N	
WHITE/ORANGE		ROLL ERROR	a	P	TWISTED PAIR
WHITE/YELLOW		ROLL ERROR RETURN	b	R	
WHITE/GREEN		ROLL RATE SIGNAL	X	S	TWISTED QUAD
WHITE/VIOLET		PITCH RATE SIGNAL	Z	Z	
WHITE/GRAY		YAW RATE SIGNAL	f	f	
WHITE/BLUE		RATE SIGNAL RETURN	R	T	
WHT/BLK/BRN		SINE γ	G	U	TWISTED TRIPLE
WHT/BLK/RED		RETURN γ	M	V	
WHT/BLK/ORN		COSINE γ	N	W	
WHT/BLK/YEL		PITCH ERROR	c	X	TWISTED PAIR
WHT/BLK/GRN		PITCH ERROR RETURN	j	Y	
WHT/BLK/BLU		SINE β	E	a	TWISTED TRIPLE
WHT/BLK/VIO		RETURN β	L	b	
WHT/BLK/GY		COSINE β	F	c	
WHT/BRN/RED		YAW ERROR	k	d	TWISTED PAIR
WHT/BRN/ORN		YAW ERROR RETURN	m	e	
WHT/BRN/YEL	↓	E.L. LIGHTING POWER	g	g	TWISTED PAIR
WHT/BRN/GRN	26	LIGHTING RETURN	h	h	

MANUFACTURING OPERATIONS

UNLESS OTHERWISE SPECIFIED NOTES CHECKED √ APPLY TO THIS DWG.

- PART NUMBER AND ALL OTHER MARKINGS IN REGION MARKED ⊠ USE BOTH SIDES IF NECESSARY.
- FILLET AND INSIDE CORNER RADII TOLERANCES .016R TO .062R ± .010; .063R TO .250R ± .015; OVER .250R ± .030
- DEPTH SHOWN FOR TAPPED HOLES IS FULL THDS. 2-3 IMP THDS. BEYOND PERMISSIBLE.
- EXTERNAL THREAD LENGTH SHOWN INCLUDES 2 IMPERFECT THREADS MAX.
- DO NOT CADMIUM PLATE & PAINT HOLES OR SURFACES MARKED WITH DOUBLE ASTERISK.
- MISMATCH STEP OF ± .005 PERMISSIBLE DUE TO CHANGE OF CUTTERS AT INSIDE INTERSECTING SURFACES.
- DIAMETERS MARKED MUST BE CONCENTRIC WITHIN FULL INDICATOR READING
- HOLES MUST BE KEPT FREE OF CHROME PLATING SOLUTION.
- ALL DIMENSIONS SHOWN TO BE MET AFTER CADMIUM PLATING. THICKNESS OF PLATE .0003 MIN. TO .0005 MAX. MIN. THICKNESS TO BE .0002 ON THREADED AREAS. NO ALLOWANCE FOR PLATING IN HOLES
- 125 √ SURFACE ROUGHNESS INCLUDING REAMED HOLES PER MIL-STD-10
- 200 √ FOR ALL DRILLED HOLES
- REMOVE ALL BURRS. BREAK ALL EDGES .015-.031
- INSPECTION INFORMATION MINIMUM PERMISSIBLE AVERAGE EDGE DISTANCE MARKED IS
- SYMBOL √ DENOTES SURFACE TO BE MACHINED
- UNLESS OTHERWISE SPECIFIED TOLERANCE ON FLANGES IS ± 1/32
- LENGTHS OF AN, NAS & MS AL ALY RIVETS SHORTER THAN 1 INCH ARE NOT SPECIFIED.
- TOLERANCE ON LOFTED DELINEATIONS IS

(J3) (C17) (K10) (D5) (D6) (E12)

PART NUMBER CHART

PART NUMBER	MODEL	L MAX (SEE SH 6 & 8)	M MAX (SEE SH 6&8)	MAX. REFLECTANCE SPHERE BLK	HERMETICALLY SEALED	RATE DIAL CONFIGURATION	GIMBAL LOCK WARNING	ERROR POINTERS & CROSSHAIR COLOR	SPHERE SEPARATOR	UPPER SPHERE HALF	WIRING PER TABLE	ETI SUPPLIED BY	SPHERE MARKINGS	ROLL MASK MARKING
LSC350-301-01	MOCK UP 4068A	8	1.25	NOTE 8	NO	SHEET 5.01	YES 2 RIGHT RED 2 LEFT ORANGE	YELLOW	GRAY NO. 36176	GRAY NO. 36622	I	LEAR	SH 4.00	SH 4.00
-02	PREPRODUCTION C	11	1.25	9%	NO	5.00	NO	WHITE	BLACK	GRAY NO. 36440	II	LEAR		
-03 (F1)	PREPRODUCTION D	8 / 8.125	1.25 / 1.125	6%	YES	5.01	YES-RED	WHITE	GRAY NO. 36176	GRAY NO. 36622	III	GAEC		
-04	PRODUCTION E	8.125	1.125	NOTE 8	YES	5.01	YES-RED	YELLOW	GRAY NO. 36176	GRAY NO. 36622	III	GAEC		
-05	PREPRODUCTION C	11	1.25	6%	NO	5.01	YES-RED	WHITE	GRAY NO. 36176	GRAY NO. 36622	II	GAEC		
-06	PREPRODUCTION C	11	1.25	9%	NO	5.00	NO	WHITE	BLACK	GRAY NO. 36440	II	GAEC		
LSC350-301-07	MOCK UP A	8	1.25	NOTE 8	NO	5.01	YES 2 RIGHT RED 2 LEFT ORANGE	GREEN	GRAY NO. 36176	GRAY NO. 36622	I	LEAR		
(E1) LSC350-301-04-1	PRODUCTION E	8.125	1.125	NOTE 8	YES	5.01	YES-RED	YELLOW	GRAY NO. 36176	GRAY NO. 36622	III	GAEC	SH 4.00	SH 4.00
LSC350-301-0424-04-3	PRODUCTION E	8.125	1.125	NOTE 8	YES	SHEET 5.01	YES-RED	YELLOW	GRAY NO. 36176	GRAY NO. 36622	III	GAEC	SH 4.01 SEE NOTE 22	

(G6)

SPECIFICATION CONTROL DRAWING

	GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK		
LEM	SIZE D	CODE IDENT NO. 26512	LSC350-301
MODEL OR END ITEM	SCALE ~		SHEET 7

TABLE III

WIRE COLOR IDENTIFICATION	AWG SIZE	SIGNAL	TEST CONNECTOR PIN	HEADER PIN	CONDITION
BROWN	22	115V 400~	A	A	TWISTED PAIR
YELLOW	22	115V RETURN	B	B	
RED	22	28V DC (+)	C	C	TWISTED PAIR
BLACK	22	28V DC RETURN (-)	D	D	
BLUE	26	SINE α	K	H	TWISTED TRIPLE
GRAY	↓	RETURN α	S	J	
WHITE		COSINE α	T	K	
WHITE/BLACK		ERROR REFERENCE 800/400 CPS	n	i	TWISTED PAIR
WHITE/BROWN		ERROR REFERENCE 800/400 CPS RET.	p	L	
WHITE/RED		RATE REFERENCE VOLTAGE	r	M	TWISTED PAIR
WHT/BRN/BLU		RATE REFERENCE VOLTAGE RET.	s	N	
WHITE/ORANGE		ROLL ERROR	a	P	TWISTED SHIELDED PAIR SEE NOTE 18
WHITE/YELLOW		ROLL ERROR RETURN	b	R	
WHITE/GREEN		ROLL RATE SIGNAL	X	S	TWISTED QUAD ON-03 ONLY INDIVIDUAL LEADS ON-03-1, -04, -04-1 & -04-2 (F7)
WHITE/VIOLET		PITCH RATE SIGNAL	Z	Z	
WHITE/GRAY		YAW RATE SIGNAL	f	f	
WHITE/BLUE		RATE SIGNAL RETURN	R	T	
WHT/BLK/BRN		SINE β	G	U	TWISTED TRIPLE
WHT/BLK/RED		RETURN β	M	V	
WHT/BLK/ORN		COSINE β	N	W	
WHT/BLK/YEL		PITCH ERROR	c	X	TWISTED SHIELDED PAIR SEE NOTE 18
WHT/BLK/GRN		PITCH ERROR RETURN	j	Y	
WHT/BLK/BLU		SINE β	E	a	TWISTED TRIPLE
WHT/BLK/VIO		RETURN β	L	b	
WHT/BLK/GY		COSINE β	F	c	
WHT/BRN/RED		YAW ERROR	k	d	TWISTED SHIELDED PAIR SEE NOTE 18
WHT/BRN/ORN		YAW ERROR RETURN	m	s	
WHT/BRN/YEL	↓	E.L. LIGHTING POWER	g	g	TWISTED PAIR
WHT/BRN/GRN	26	LIGHTING RETURN	h	h	
		SHIELD GROUND	J		
		CHASSIS GROUND		E	

MANUFACTURING OPERATIONS

UNLESS OTHERWISE SPECIFIED NOTES CHECKED √ APPLY TO THIS DWG.

PART NUMBER AND ALL OTHER MARKINGS IN REGION MARKED ▭ USE BOTH SIDES IF NECESSARY.

FILLET AND INSIDE CORNER RADII TOLERANCES
.016R TO .062R ± .010
.063R TO .250R ± .015
OVER .250R ± .030

DEPTH SHOWN FOR TAPPED HOLES IS FULL THDS. 2-3 IMP THDS. BEYOND PERMISSIBLE.

EXTERNAL THREAD LENGTH SHOWN INCLUDES 2 IMPERFECT THREADS MAX.

DO NOT CADMIUM PLATE & PAINT HOLES OR SURFACES MARKED WITH DOUBLE ASTERISK.

MISMATCH STEP OF ± .005 PERMISSIBLE DUE TO CHANGE OF CUTTERS AT INSIDE INTERSECTING SURFACES.

DIAMETERS MARKED MUST BE CONCENTRIC WITHIN FULL INDICATOR READING

HOLES MUST BE KEPT FREE OF CHROME PLATING SOLUTION.

ALL DIMENSIONS SHOWN TO BE MET AFTER CADMIUM PLATING. THICKNESS OF PLATE .0003 MIN. TO .0005 MAX. MIN. THICKNESS TO BE .0002 ON THREADED AREAS. NO ALLOWANCE FOR PLATING IN HOLES

125√ SURFACE ROUGHNESS INCLUDING REAMED HOLES PER MIL-STD-10

200√ FOR ALL DRILLED HOLES

REMOVE ALL BURRS. BREAK ALL EDGES .015-.031

INSPECTION INFORMATION MINIMUM PERMISSIBLE AVERAGE EDGE DISTANCE MARKED IS

SYMBOL √ DENOTES SURFACE TO BE MACHINED

UNLESS OTHERWISE SPECIFIED TOLERANCE ON FLANGES IS ± 1/32

LENGTHS OF AN, NAS & MS AL ALY RIVETS SHORTER THAN 1 INCH ARE NOT SPECIFIED.

TOLERANCE ON LOFTED DELINEATIONS IS

TABLE V

WIRE IDENTIFICATION	SIGNAL	TEST CONNECTOR PIN	HEADER PIN	CONDITION
AIA-1 NAT	115V 400 ~	A	A	TWISTED PAIR
AIA-2 BLK	115V RETURN	B	B	
AIA-3 NAT	RETURN γ	M	V	TWISTED TRIPLE
AIA-4 BLK	COSINE γ	N	W	
AIA-5 RED	SINE γ	G	U	
AIA-6 NAT	RETURN β	L	b	TWISTED TRIPLE
AIA-7 BLK	COSINE β	F	c	
AIA-8 RED	SINE β	E	a	
AIA-9 NAT	RETURN α	S	J	TWISTED TRIPLE
AIA-10 BLK	COSINE α	T	K	
AIA-11 RED	SINE α	K	H	
AIA-12 NAT	RATE REFERENCE RETURN	s	N	TWISTED PAIR
AIA-13 BLK	RATE REFERENCE VOLTAGE	r	M	
AIA-14 NAT	ERROR REFERENCE RETURN	p	L	TWISTED PAIR
AIA-15 BLK	ERROR REFERENCE 800/400 CPS	n	i	
AIA-16 NAT	ROLL ERROR	a	P	TWISTED SHIELDED PAIR SEE NOTE 18
AIA-17 BLK	ROLL ERROR RETURN	b	R	
AIA-18 NAT	PITCH ERROR	c	X	TWISTED SHIELDED PAIR SEE NOTE 18
AIA-19 BLK	PITCH ERROR RETURN	j	Y	
AIA-20 NAT	YAW ERROR	k	d	TWISTED SHIELDED PAIR SEE NOTE 18
AIA-21 BLK	YAW ERROR RETURN	m	s	
----	SHIELD GROUND	J	-	SEE NOTE 18
AIA-23 NAT	LIGHTING RETURN	h	h	TWISTED PAIR
AIA-24 BLK	E.L. LIGHTING POWER	g	g	
AIA-25 NAT	28V D.C. RETURN (-)	D	D	TWISTED PAIR
AIA-26 BLK	28V D.C. (+)	C	C	
AIA-27 NAT	PITCH RATE SIGNAL	Z	Z	TWISTED PAIR
AIA-28 BLK	PITCH RATE SIGNAL RETURN	U	F	
AIA-29 NAT	ROLL RATE SIGNAL	X	S	TWISTED PAIR
AIA-30 BLK	ROLL RATE SIGNAL RETURN	R	T	
AIA-31 NAT	YAW RATE SIGNAL	f	f	TWISTED PAIR
AIA-32 BLK	YAW RATE SIGNAL RETURN	H	t	
----	CHASSIS GROUND	-	E	----------

(KH)

REQM'TS FOR TABLE V:

1) ALL WIRE #22 AWG
2) WIRE WILL BE SUPPLIED BY GRUMMAN AS FOLLOWS:
   TWISTED PAIR: LSS390-1351-1222
   TWISTED TRIPLE: LSS390-1351-1223
   TWISTED SHIELDED PAIR: LSS390-1361-1222
3) WIRE IDENTIFICATION SHALL BE APPLIED BY USING A KYNAR SHRINK SLEEVE MARKED WITH A KINGSLY MARKER. . THE SLEEVE FOR A TWISTED PAIR SHALL CONTAIN BOTH NUMBERS IN THAT PAIR. THE SLEEVE FOR A TWISTED TRIPLE SHALL CONTAIN ALL NUMBERS IN THE TRIPLE. TWO IDENTIFICATION SLEEVE SETS PER PIGTAIL LENGTH SHALL BE USED. ONE SET OF SLEEVES SHALL BE SHRUNK TO THE WIRES AT THE INDICATOR END. THESE SLEEVES SHALL BE STAGGERED TO MINIMIZE CABLE DIAMETER AND SHALL BE SHRUNK ALONG THE CABLE STARTING APPROXIMATELY 3 INCHES FROM THE POTTING AND ENDING APPROXIMATELY 6 INCHES FROM THE POTTING. THE SECOND SET OF SLEEVES SHALL BE LEFT FLOATING AT THE TEST CONNECTOR END OF THE CABLE. GRUMMAN WILL POSITION AND SHRINK THE FLOATING SLEEVES AT NEXT ASSEMBLY.

SUPPLEMENTARY DATA

UNLESS OTHERWISE SPECIFIED NOTES CHECKED ☑ APPLY TO THIS DWG.

MARK PART NUMBER IN ACCORDANCE WITH MIL-STD-130.

PART NUMBER AND ALL OTHER MARKINGS IN REGION MARKED ⊠ USE BOTH SIDES IF NECESSARY.

LENGTHS OF AN, NAS & MS AL ALY RIVETS SHORTER THAN 1 INCH ARE NOT SPECIFIED.

INSTALL RIVETS IN ACCORDANCE WITH

PART NUMBER CHART

PART NO.	MODEL	OUTLINE DWG	L MAX	M MAX	MAX REFLECTANCE SPHERE BLK	HERMETICALLY SEALED	RATE DIAL CONFIGURATION	RATE METER SENSITIVITY FUEL SCALE VOLTAGE	ERROR POINTER & CROSSHAIR COLORS	GIMBAL LOCK WARNING	SPHERE SEPARATOR COLOR	UPPER SPHERE ½ COLOR	WIRING PER TABLE	ETI SUPPLIED BY	SPHERE MARKINGS	ROLL MASK MARKING	POWER OFF FLAG NOTE 22	ERROR METER SCALES SH. 4.01	ACCEPTANCE TEST VIBRATION LSP 350-301	DEVIATIONS
LSC350-301-01	MOCK UP 4068A	SH. 6.00	8	1.25	NOTE 8	NO	SH 5.01	N. A.	YEL	YES 2 RIGHT RED 2 LEFT ORN	GRAY NO. 36176	GRAY NO. 36622	I	LEAR	SH 4.00	SH 4.00	NO	NO	NA	NONE
-02	PRE-PROD C		11	1.25	9%	NO	5.00	± 0.8	WHT	NO	BLACK	GRAY NO. 36440	II	LEAR	4.00	4.00	NO	NO		NONE
-02-1	PRE-PROD C		11	1.25	NOTE 8	NO	5.02	± 0.2	YEL	SH. 4.02	GRAY NO. 36176	GRAY NO. 36622	IV	GAEC	4.02	4.02	MAGNETIC RETURN	YES		LVC 350-301-092
-03	PRE-PROD D		8	1.25	6%	YES	5.01	± 0.8	WHT	YES-RED			III		4.00	4.00	NO	NO		NONE
-03-1	PRE-PROD D		8.125	1.25	6%		5.01	± 0.8	WHT	YES-RED			III		4.00	4.00	NO	NO	NA	NONE
-04	PRODE			1.125	NOTE 8		5.01	± 0.8	YEL	YES-RED			III		4.00	4.00	NO	NO	TABLE IV	LVC 350-301-054
-04-1							5.01	± 0.8		YES-RED			III		4.00	4.00	NO	NO	TABLE IV	LVC 350-301-054
-04-2		SH. 6.00					5.01	± 0.8		YES-RED			III		4.01	4.01	NO	YES	TABLE IV AMEND 2 LVC 056	NONE
-04-3		SH 8.00					5.01	± 0.8		YES-RED			III		4.01	4.01	MAGNETIC RETURN	YES	TABLE IV AMEND 2 LVC 056	NONE
-04-4							5.02	± 0.2		SH. 4.02			V		4.02	4.02	MAGNETIC RETURN	YES	TABLE IV AMEND 2 LVC 056	LVC 350-301-088
-04-5							5.02	± 0.2		SH. 4.02			V		4.02	4.02	MAGNETIC RETURN	YES	TABLE VIII	LVC 350-301-089
-04-6	PRODE	SH. 8.00	8.125	1.125	NOTE 8	YES	SH 5.02	± 0.2	YEL	SH. 4.02			V		4.02	4.02	SPRING RETURN	YES	TABLE VIII	LVC 350-301-099 & -103
-05	PRE-PROD C	SH. 6.00	11	1.25	6%	NO	SH. 5.01	± 0.8	WHT	YES-RED			II		4.00	4.00	NO	NO	NA	NONE
-05-1	PRE-PROD C		11		NOTE 8	YES	SH. 5.02	± 0.2	YEL	SH 4.02	GRAY NO. 36176	GRAY NO. 36622	IV		4.02	4.02	MAGNETIC RETURN	YES		
-06	PRE-PROD C		11		9%	NO	SH. 5.00	± 0.8	WHT	NO	BLACK	GRAY NO. 36440	II	GAEC	4.00	4.00	NO	NO		
LSC350-301-07	MOCK UP A	SH. 6.00	8	1.25	NOTE 8	NO	SH 5.01	NA	GRN	YES 2 RIGHT RED 2 LEFT ORN	GRAY NO. 36176	GRAY NO. 36622	I	LEAR	SH. 4.00	SH 4.00	NO	NO	NA	NONE

01

NAS 9-1100

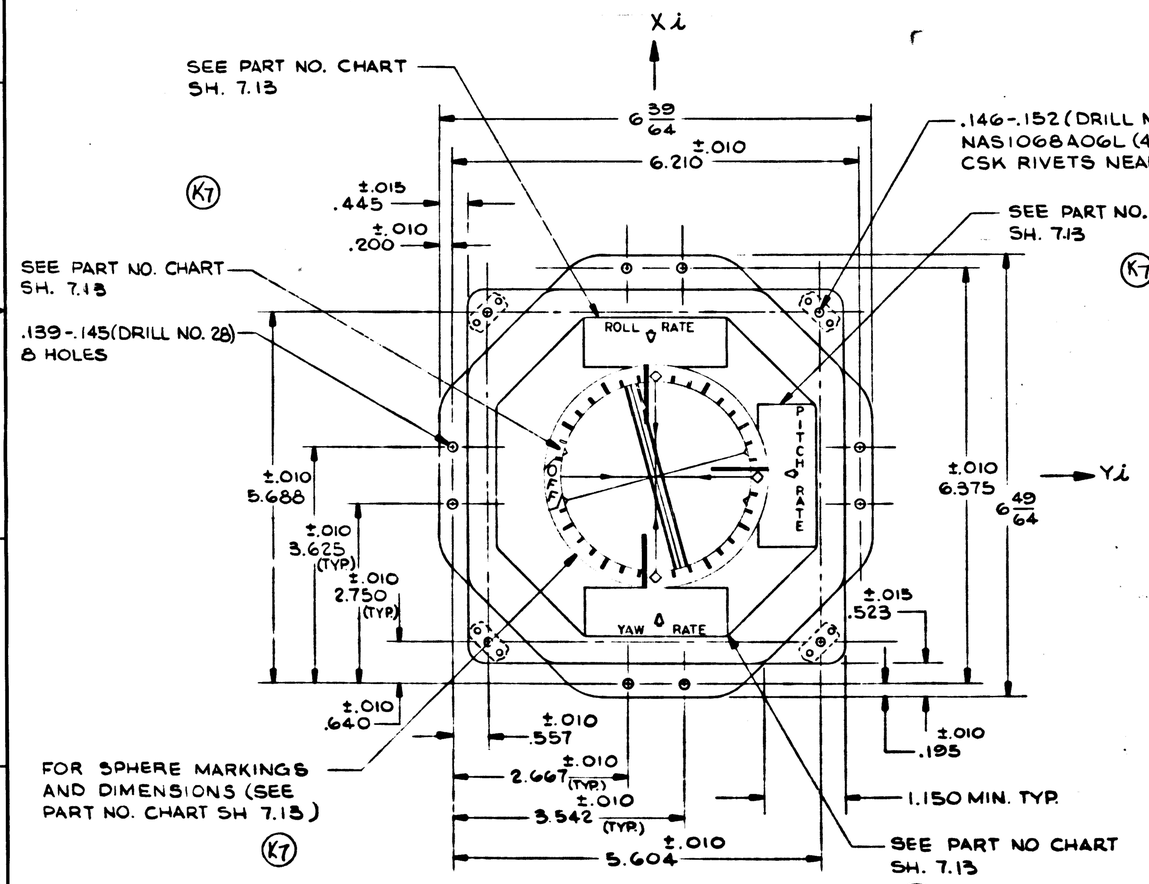
SPECIFICATION CONTROL DRAWING

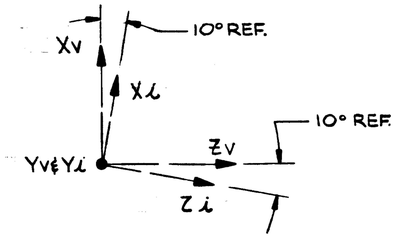
GRUMMAN AIRCRAFT ENGINEERING CORPORATION
BETHPAGE, NEW YORK 11714

SIZE	CODE IDENT NO.		
D	26512	LSC350-301	N
SCALE NONE		SHEET 7.13	

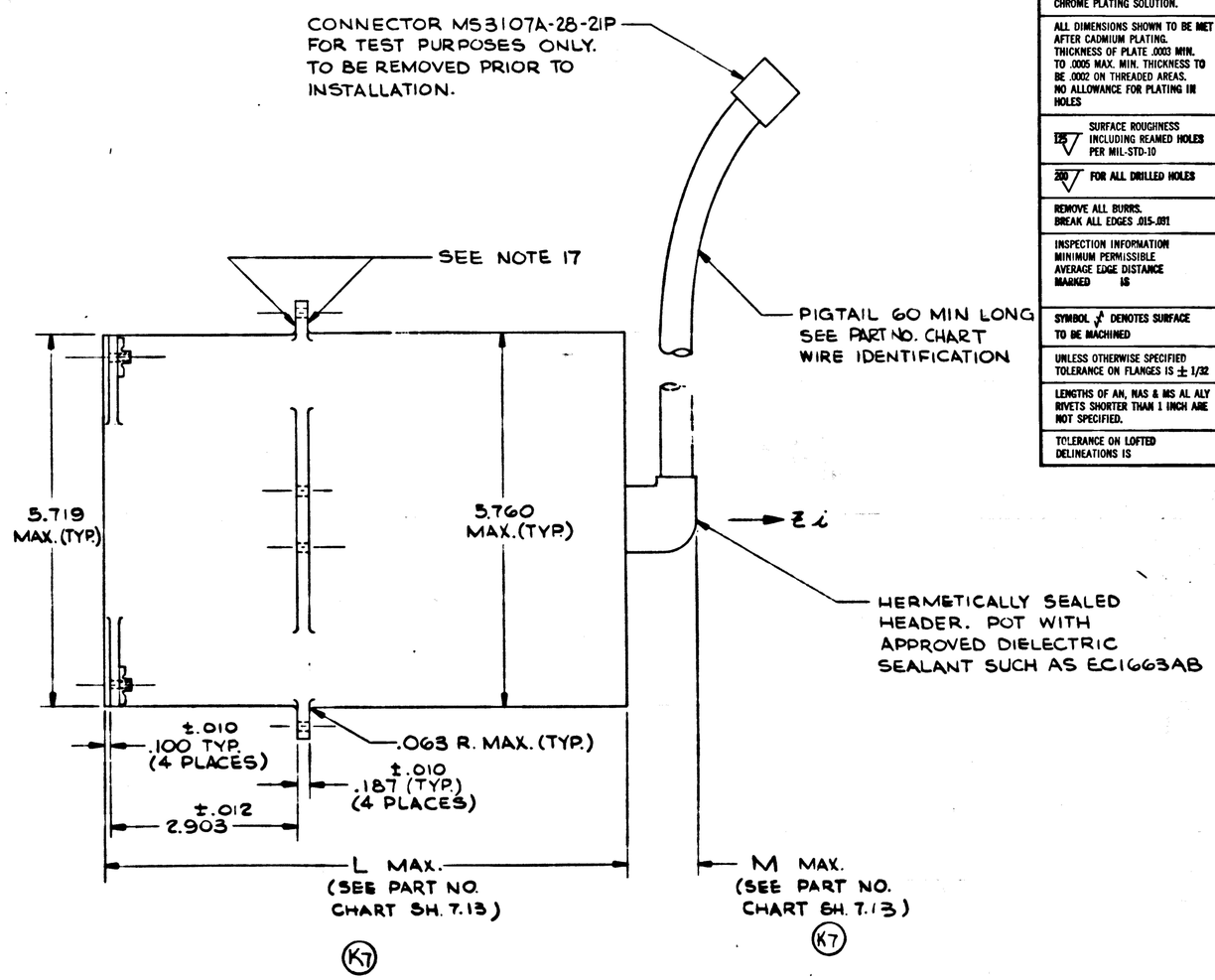
SUPERSEDES LSC 350-301 REV L 12-31-68

EBG 73.3 REV. 5-67





INDICATOR AXIS IN REF. TO VEHICLE AXIS (FOR REF ONLY)



MANUFACTURING OPERATIONS

UNLESS OTHERWISE SPECIFIED NOTES CHECKED √ APPLY TO THIS DWG.

- PART NUMBER AND ALL OTHER MARKINGS IN REGION MARKED ▭ USE BOTH SIDES IF NECESSARY.
- FILLET AND INSIDE CORNER RADII TOLERANCES .016R TO .062R ± .010; .063R TO .250R ± .015; OVER .250R ± .030
- DEPTH SHOWN FOR TAPPED HOLES IS FULL THDS. 2-3 IMP THDS. BEYOND PERMISSIBLE.
- EXTERNAL THREAD LENGTH SHOWN INCLUDES 2 IMPERFECT THREADS MAX.
- DO NOT CADMIUM PLATE & PAINT HOLES OR SURFACES MARKED WITH DOUBLE ASTERISK.
- MISMATCH STEP OF ± .005 PERMISSIBLE DUE TO CHANGE OF CUTTERS AT INSIDE INTERSECTING SURFACES.
- DIAMETERS MARKED MUST BE CONCENTRIC WITHIN FULL INDICATOR READING
- HOLES MUST BE KEPT FREE OF CHROME PLATING SOLUTION.
- ALL DIMENSIONS SHOWN TO BE MET AFTER CADMIUM PLATING. THICKNESS OF PLATE .0003 MIN. TO .0005 MAX. MIN. THICKNESS TO BE .0002 ON THREADED AREAS. NO ALLOWANCE FOR PLATING IN HOLES
- 125 √ SURFACE ROUGHNESS INCLUDING REAMED HOLES PER MIL-STD-10
- 250 √ FOR ALL DRILLED HOLES
- REMOVE ALL BURRS. BREAK ALL EDGES .015-.031
- INSPECTION INFORMATION MINIMUM PERMISSIBLE AVERAGE EDGE DISTANCE MARKED AS
- SYMBOL △ DENOTES SURFACE TO BE MACHINED
- UNLESS OTHERWISE SPECIFIED TOLERANCE ON FLANGES IS ± 1/32
- LENGTHS OF AN, NAS & MS AL ALY RIVETS SHORTER THAN 1 INCH ARE NOT SPECIFIED.
- TOLERANCE ON LOFTED DELINEATIONS IS

(J3) LSC350-301-04-3 ASSY, INDICATOR, ATTITUDE (SEE PART NO. CHART SH 7.13)

SPECIFICATION CONTROL DRAWING

	GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK		
LM	SIZE F	CODE IDENT NO. 26512	LSC350-301 K
	SCALE FULL		SHEET 8.00